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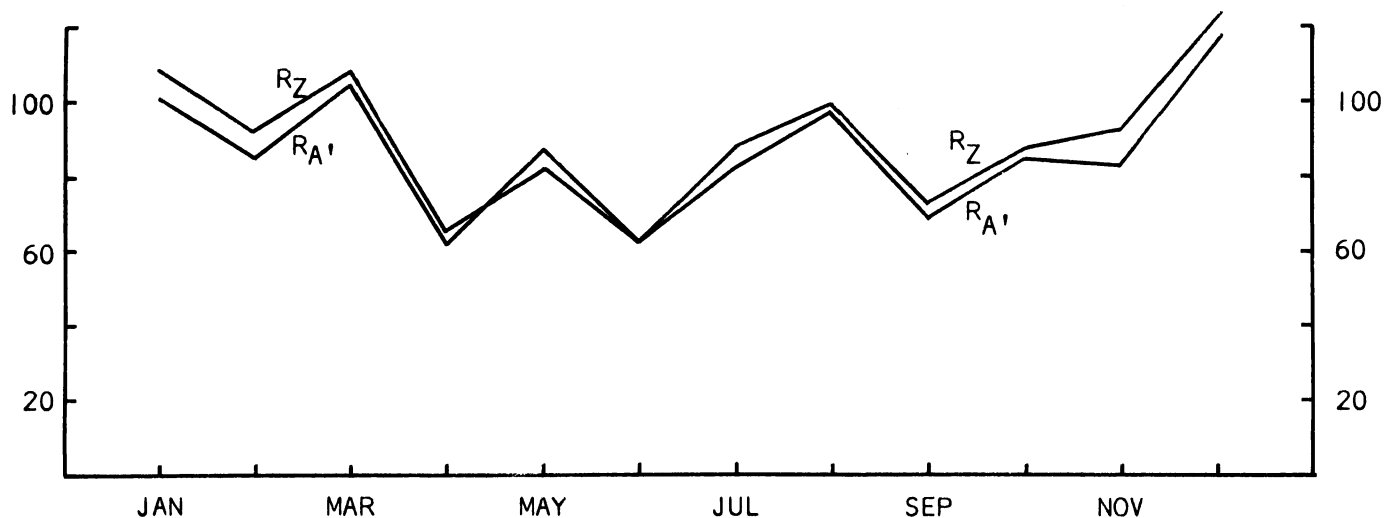
December 1967

SOLAR ACTIVITY DURING DECEMBER

Solar activity reached its highest peak at the middle of the month when many flares were associated with a large beta-gamma group that grew to maximum near the central meridian in the northern hemisphere. Magnetic polarity drawings of the early stages of this large F-type group are shown in the supplement to this issue of the Solar Bulletin. A recording of a sudden ionospheric disturbance associated with a flare on the 16th is reproduced on page 2. Another recording shows three SID's recorded on the 1st of December. A complete list of SID's recorded by Solar Division observers also appears on page two.

Sunspot activity increased markedly during December. The monthly mean of the American sunspot numbers rose to 117.2 from 82.6 the previous month. Despite this great activity, there was a period at the end of the month when the sun's northern hemisphere was completely spotless. Besides the two large F groups shown in the supplement, there were many small groups which contributed heavily to the high December mean. The greatest number of groups occurred on the 14th when 17 were visible.

RECENT TREND OF RELATIVE SUNSPOT NUMBERS



AMERICAN (R^A) AND ZURICH (R^Z) RELATIVE SUNSPOT NUMBERS, DECEMBER 1967

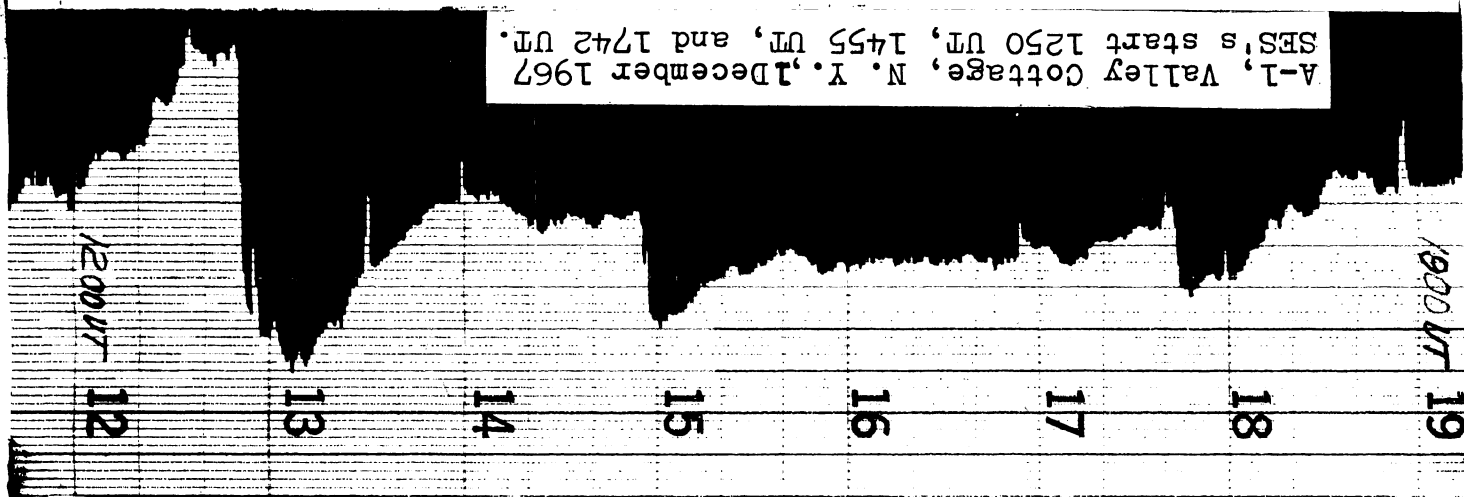
day	R ^A	R ^Z
1	106	131
2	103	126
3	86	89
4	76	75
5	77	71
6	86	88
7	101	126
8	114	131
9	102	113
10	99	114
11	125	112
12	130	110
13	129	124
14	127	140
15	152	151

December mean R^A = 117.2

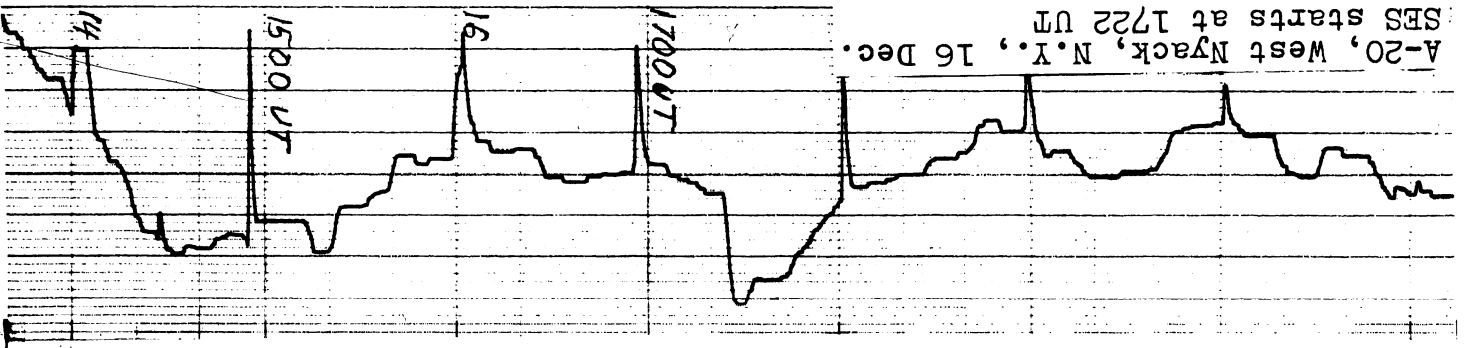
December mean R^Z = 123.2

SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING DECEMBER DAY MAX. SEA SES DEF. OBSERVERS

Day	Observer	Time (UT)
1	A-1	1254
1	A-1	1458
1	A-1	1745
1	A-1*	6, 19
1	A-17	0714
15	A-1	0714
16	A-1, 20	1518
16	A-1, 20	1725



A-1, Valley Cottage, N. Y., December 1967
SES's start 1250 UT, 1455 UT, and 1742 UT.



A-20, West Nyack, N.Y., 16 Dec.
SES starts at 1722 UT